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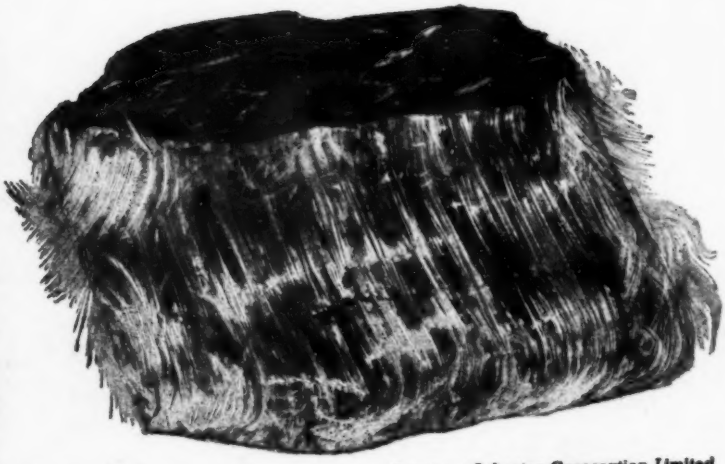

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WHITHER ASBESTOS IN SOUTHERN AFRICA?

By: W. E. Sinclair, M.I.M.M.

There was a time when such calamities as recessions and slumps were accepted as an inevitable part and parcel of the vagaries of the industry and more especially in the production field.

The not infrequent vissicitudes suffered by the producers of all varieties of asbestos from these causes is clearly recorded in productive graphs down the years. In these, the inconstant output, as defined by a curve depicting a series of peaks and valleys, indicates an almost monotonous regularity of depressed market conditions.

In recent years, however, asbestos plays an important part and is associated with industry in so many different spheres, that the ups and downs of supply and demand come as rather a shock, notwithstanding the fact that world markets suffer unaccountable fluctuations from time to time when, even the most stable industrial activities, suffer the effect of these upsetting conditions.

Even though such a position occurred in North America in 1958, when asbestos production dropped as a result of a slackening demand, in most other producing countries output was unaffected by the effect of this recession at that time.

However, in the middle of last year, shadows cast a gloom over crocidolite production in this country, and this ultimately assumed proportions resembling a minor depression. These conditions soon affected the industry as a whole, in the production of all varieties of asbestos, both in the Union and in Southern Rhodesia. Unfortunately, as is so often the case, the small mines suffered the most severe losses.

It has been suggested that this set-back consisted of a "backwash" of the recession in North America in the previous year, when the serious fall in demand resulted in over-stocking and a drop in production in the Canadian field. This is undoubtedly a gauge as to the current industrial supply and demand in the asbestos industry. The drop in output from about one million tons to 873,604 tons in 1958 is the measure of the recession. By contrast, the

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upward swing of 13.7% in output in 1959, is indicative of the return to normal conditions by a substantial increase in productive value of about fourteen million dollars.

As this position righted itself in America, so the slowing down of production was forced on the industry in Southern Africa as a direct result of selective markets, probably aggravated, as far as chrysotile goes, by Russian exports to Europe.

In Rhodesia, the world excess of supply over demand is clearly reflected in the fall production, as follows:

1958: 127,115 tons, valued at £8,593,726.
1959: 119,699 tons, valued at £7,405,258.

Strangely enough, this represented a drop in value of 13.8%, in the same period when Canadian production increased by 13.7%.

A similar story may be said to apply to the Union where, in general, poor demand resulted in over-stacking and a consequent forced curtailment of production. One chrysotile mine closed down due to uneconomic conditions and other small propositions were faced with many difficulties, such as lack of capital due to unsold stocks and so on.

The whole position in the Union is shown in the following comparative total outputs of all varieties of asbestos in 1958 and 1959, respectively—

1958: 175,447 tons, valued at £5,094,771.
1959: 169,292 tons, valued at £4,561,592.

It is not only the small mines that were caught on the wrong foot. Most of the larger companies also felt the impact but have been in a better position to weather the storm by simply reducing production and carrying surplus stocks till markets improve which, as it happens, promises to be the case in the current year. Indeed, except in the case of crocidolite, there is a definite revival, illustrated by an increase, in the first half of 1960, of about one and a quarter million pounds in value of the total output.

The most serious aspect of the whole situation is that of the lagging recovery of the crocidolite industry in the Union. This is counter to general world conditions in this

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sphere of the asbestos industry for which there is no clear explanation. True, as already suggested in previous articles, Australian crocidolite production grows by leaps and bounds, not that their export tonnage (8,731 tons in 1959) would replace the drop in exports from the Union. However, it is possible that far larger production on export contracts is envisaged from Western Australia where an output of not less than 25,000 tons annually is planned in the near future, and in addition, an extended programme is being carried out to increase the development of their known resources.

From time to time reports have been current as to the use of harsh chrysotile as a substitute for crocidolite in the asbestos cement industry. In practice, however, it is an accepted fact in the fabrication of most asbestos-cement products, crocidolite fibres are superior to others and more particularly in the making of high pressure pipes. In addition to the strength of the Blue fibres, there is not the possible disadvantage of the presence of talc, always a liability in chrysotile fibres. It is interesting to note, however, that a rider to this finding, stresses the point that it is important that the Blue fibres should be "opened up" or fully fiberized by the producers and delivered in a clean condition. It is only by using crocidolite that has been cleaned and graded that asbestos cement pipes able to withstand pressures up to 1,000 pounds per square inch, up to 16 inch diameters can be satisfactorily manufactured.

In this industry the same conditions apply to the use of amosite asbestos and more especially in the making of moulded asbestos-cement products. The advantage of the length of these fibres enables the fabrication of more plastic sheets with exceptional strength.

It is possible that the lack of uniform grading and the dusty and dirty state of the amphibole asbestos fibres exported from this country are factors responsible for the fall in demand by manufacturers. It must be admitted that it is not yet recognized, by some producers, that modern conditions have somewhat changed the old precepts today because of the need for fibre to satisfy more exacting demands in certain spheres in a new and wide field of application. More exacting grading is essential, and milling tech-

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nique, design and operational functions, to ensure clean and uniform grades, are as important in our production today as was recognized in the Canadian field several years ago.

However, this is only one aspect of the question as it applies to Southern Africa and it is one that does not seriously affect the two or three large producing companies since these cater mainly for their own manufacturing subsidiaries or supply other consumers on a mine to factory basis.

The future maintenance of the industry in Southern Africa is bound up mainly in the successful solution of the problem of the economic exploitation of the small deposits, so many of which constitute a not insignificant proportion of the country's resources.

Small operators are not in a position to tide over recessional periods by carrying unsold stocks and devoting their energies in power machines and men to the expansion of development to increase reserves, nor are they able to step up output by taking advantage of the great advance in mining methods and milling techniques, to increase efficiency as is customary by more substantial companies. Indeed, most of the smaller propositions lack the capital to establish mills and this fact alone presents the first serious handicap to small operators. World requirements in the industrial field leave no option for the small producers but the choice of the following two ways out of the impasse; either to cooperate amongst themselves to establish a centralized mill, or to sell their output (as ore) to the nearest company operating a mill. The latter arrangement, if and when it can be agreed upon, not only overcomes their milling problem but solves the question of marketing their product. This in itself constitutes one of the most difficult and unsatisfactory operations of the independent producer, more especially in times of depressed markets and low prices.

Assuming that the question of milling be satisfactorily resolved, the small producer is then free to concentrate on the all important matter of economical mining operations, often a difficult business in small deposits when payable ore habitually occurs in isolated patches. This, to some ex-

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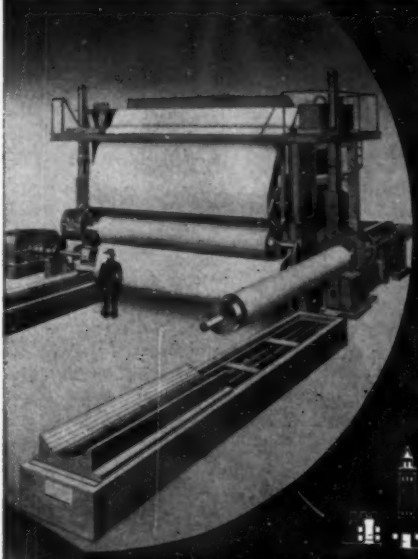

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tent, accounts for the fact that such ore deposits lend little interest to the larger producing companies. This is explained by the reason that there is rarely an opportunity to take advantage of the new developments in mining technique to increase efficiency, nor is it always feasible to lower costs by stepping up output.

Similarly, erratic mineralization is a serious handicap to regular development and consequently the proving of a substantial ore reserve position is difficult. The best that can be done in this respect, depends on the size of the payable zones since useful results can only be attained by strictly following the ore-body.

Efforts made to step up production or footage consists in many instances of following the modern trend of mechanization, which has, in most cases, resulted in higher costs, even when output could be improved. Labor saving machines may be of great assistance in special work but even so the capital outlay involved and the skilled personnel necessary, high costs of maintenance and essential supplies are excessive, unless full advantage can be taken of their maximum capacity.

In considering the question of mechanization the greatest care and discrimination is essential in the selection of the correct and suitable machines for each and every job. This must be combined with suitable planning in the installation of plant and auxiliary equipment plus continuous attention to the organization and operations, especially to ensure that machines are kept fully employed continuously. It is only in this way that it is possible to reap the maximum benefits and efficiency. The magic word of mechanization and the installation of machines of the wrong type and capacity do not necessarily improve yields or reduce costs. Such advantages flow only from intelligent application and close supervision.

The existing high cost structure is the cause of increasing working costs and unpayability in small undertakings. It is fairly obvious that, apart from the adverse influence of various physical working conditions (often more common in minor deposits), working costs are characterized by high wages on one hand and costly supplies on the other. These limiting factors are in no way minimized

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by mechanization, more especially where a standard system of mining is impossible because of irregular fibre deposition. In such cases, the cheapest selective method or methods, to give the best results, must be applied with close and constant attention given to operations.

In these cases, local conditions are usually a safe directive to economic production. Even the most effective method employed demands efficiency studies in greater detail, reliable supervision and preventative measures against wastage of ore, materials and labor.

To draw a final inference from this brief summary, it may be safely said, that to obtain positive results and payable production, any method employed consists simply of a special technique with no hard and fast rules, but a means of beneficial expediency to meet prevailing peculiar conditions.

GEORGE R. VILA was elected President and Chief Operating Officer of *United States Rubber Company* by the Board of Directors. He took office on November 1st, 1960, succeeding JOHN W. McGOVERN, who retired after 40 years of service in the company. Mr. McGovern will continue as a member of the Board of Directors and Executive Committee.

Mr. Villa came to his new post after three years as Group Executive Vice President responsible for the operations of the company's Naugatuck Chemical, textile, international and plantation divisions as well as the subsidiaries Dominion Rubber Company Limited (Canada) and Latex Fiber Industries, Inc. of Beaver Falls, New York. He was formerly a Vice President and General Manager of the Naugatuck Chemical division.

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The New "Hipres Process For The Manufacture Of Asbestos-Cement Fittings By Injection"

By: Alberto Romero, Civil Engineer

The main features of the Hipres Process are: The highest resistance; seamless one-piece fittings; perfect finish on the inside and outside; a standard of efficiency never attained before; hand-moulding completely done away with; and, an entirely automatized process. Patented by S. Casanova, Calle Maria De Molina, 3, Valencia, Spain.

About three years ago, I received the commission of giving mechanical expression to an idea covered by a U.S.A. Patent consisting of putting into practice an injection process in connection with the Asbestos-Cement industry.

I was acquainted with the various attempts which had been made in different countries in this field, so on receiving, together with the commission, a report on the patent application—not yet disclosed at that time—my first reaction was one of scepticism, but after carefully going through its context I eventually became identified with the inventor's idea and my previous indifference changed to enthusiasm when I realized the great possibilities of the process.

This process was meant to be applied, in the first place, to the making of those fittings the manufacture of which, under such processes as are prevailing at the present time, requires a great deal of labor, namely, bends and branches. Thus a pilot-plant was built that could turn out bends up to 150 m/m in diameter and branches up to 60 m/m. Tests conducted on this pilot-plant established beyond doubt the practical usefulness of the idea behind it. Three years of ceaseless toil, until perfection in the finished product could be attained, was the price paid for this achievement. Out of the many difficulties which had to be overcome during this time, I shall only mention that involved in feeding slurry into the mould.

Time after time I was forced to depart from the course

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I had originally set off on, and drop everything done so far until I finally could produce fiittings which need not undergo further alterations every 60 seconds and yet could be removed from the mould at a speed in rhythm with production, without detriment to their finish, and with an even thickness throughout.

This pilot-plant was used for manufacturing some tube test-pieces which could be subjected to an interior pressure so that the specific resistance obtained in this first attempt might be found out. It was proved through these experiments that (allowing for their especial shape) Bends and Branches obtained results never before attained in using of conventional processes. Thus, a wide economical field was opened to the Asbestos-Cement industry.

Research work has not been called off as yet but bearing in mind how helpful it would be if this process were brought to bear, from an industrial point of view, and made available to the trade, I have devised a plant which will be fitted to make 10/12 fittings at a time in three minutes. This period of time covers all the necessary phases the machine must go through before the finished fittings are finally laid out on the carrier tray.

I would point out that complete automation has been brought about for all the movements making up this manufacturing process, except, naturally, for the insertion and removal of moulds and inner cores.

I consider this process to be a very useful one, not only on account of its high speed in manufacturing as pointed to when touching on the plant's performance and the remarkable cut in labor resulting from automation, but also because of the possibility of using any kind of Asbestos, however short its fibres and in whatever proportion.

I would emphasize the fact that the making of fittings, which, in all the processes hitherto known, was dependent on the plate mill, becomes now quite independent of it, thanks to the Hipres process.

It will take approximately two months to put the industrial plant into operation. When the time comes, I will revert back to this subject and keep you informed of the ultimate results obtained, with an exhaustive report on the especial features of the Hipres process.

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Johns-Manville Corporation opened a multi-million dollar asphalt and vinyl asbestos floor tile plant at Chillicothe, Ohio, on October 11, 1960, its fourth devoted exclusively to the manufacture of resilient floorings.

The new plant, strategically situated to supply an expanding 11-state market in this midwest region, increases the company's total floor tile productive capacity to almost 50%.

A large portion of the new floor tile plant's manufacturing capacity will be assigned to production of increasingly popular styles, recently developed in the Johns-Manville Research laboratories, which are said to capture the true grain and color tones of natural woods. The new products will be included at the plant in the broad J-M Terraflex vinyl asbestos floor tile line which Johns-Manville pioneered in 1947.

The plant has a straight-line, electronically-controlled manufacturing process described by J-M engineers as "the newest, most highly mechanized plant in the resilient flooring industry".

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The J-M Plant will manufacture both asphalt asbestos floor tile and vinyl asbestos floor tile in a wide range of colors. Solid vinyl tile will be stocked to facilitate midwest shipments.

The resilient flooring industry is producing asphalt asbestos floor tile now at an annual rate of one million square feet. It is expected that vinyl asbestos floor tile should record an industry sales total of about one-half billion square feet in 1960. Johns-Manville has been a leader in this industry since it was started on a wide commercial basis.

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Motor Trucks	65,948
Motor Coaches	358
	390,326

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These figures were supplied by the Automobile Manufacturers Association, New Center Building, Detroit, Michigan.

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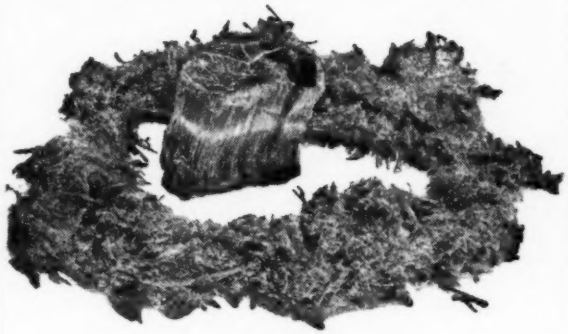

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Two New High Temperature Insulations

Two new High Temperature Insulations, Atlas "*Kalsil*" and Atlas "*Kalfelt*", are being placed on the market by Atlas Asbestos Company Limited.

Both products are manufactured of calcium silicate and asbestos fibre; "Kalsil" being a moulded insulation in pipe covering and block form, "Kalfelt" pipe covering being made of laminations of calcium silicate felts.

Atlas "Kalsil" has a temperature limit of 1350°F., a (K) factor of .46 at a mean temperature of 400°F., and density—11.5 lbs./cu. ft. The product is applied in a similar manner to the well known "Newalls" 85% Magnesia. It is strong, tough, light in weight and workable. It can withstand immersion in water and on drying out resumes its efficiency. Atlas "Kalsil" will be widely used on process lines and for marine work.

The new Atlas "Kalfelt" pipe covering was produced to provide an answer to the problem of insulating high temperature lines which may be subjected to heavy mechanical abuse. With a temperature limit of 1200°F., and a (K) factor of .44 at 300°F., mean temperature, the density is 14 pounds per cubic foot. Atlas "Kalfelt" is extremely strong, can withstand considerable impact without damage, does not become deformed when wet and resumes its normal efficiency on drying. Although manufactured by a laminating process, Atlas "Kalfelt" is not an asbestos paper product. The felts are composed solely of calcium silicate, selected asbestos fibres and a thermally and chemically inert bonding agent. No wood pulp or starch fillers have been added. A similar product has been widely specified in the United States for insulating high and medium temperature lines where the possibility of abuse is indicated.

Both products are manufactured in nesting pipe sizes so that successive layers may be added as required. They are competitively priced and are available from coast to coast in Canada through Atlas Asbestos Company Limited, 5600 Hochelaga Street, Montreal, Canada, and its Distributors and Applicators.

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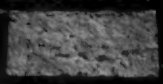
7M-90

Brand X



	Carey 7M-90	*Brand X*
Shrinkage (volumetric)	33.7%	44.3%
Wet Coverage (1-1 ratio)	28.5 Bd. Ft.	27.7 Bd. Ft.
Dry Coverage	18.9 Bd. Ft.	15.5 Bd. Ft.

Information and samples may be obtained from your Carey Asbestos Fibre Sales Engineer or by contacting Carey-Canadian Mines, Ltd., P. O. Box 95, Lockland, Cincinnati 15, Ohio, or Carey-Canadian Mines, Ltd., East Broughton Station, P.Q., Canada.

Carey®

THE RUBEROID CO.
74th Anniversary

Ceremonies marking the 74th anniversary of The Ruberoid Co. were held at 20 company plant locations throughout the United States. Ruberoid, a large producer of building and industrial products, began business on October 20th, 1886.

Singled out for special recognition were members of the Ruberoid Twenty-Fivers, an honorary service organization composed of employees with 25 years or more of company service. A group of 87 new members were welcomed into the club this year, bringing the total membership of active employees to 505. There are also 184 retired employees in the organization.

Speaking from Ruberoid's executive offices in New York City, E. J. O'Leary, President and Chairman of the Board, told the company's 5,200 employees "the uncertainty that has characterized the national economy in 1960 has provided another test of Ruberoid's ability to fulfill its obligations to many. The company-wide spirit of cooperation demonstrated so adequately under similar conditions in the past—has again enabled Ruberoid to supply customers with high quality products at competitive prices, to maintain a favorable return to stockholders on their investment, to provide employees with many essential benefits and to contribute to the continued development of those communities of which we have been happy to be a part.

"Despite the moderate business decline which industry in general has experienced this year, I remain enthusiastic about our country's prospects for unprecedented growth in the years ahead. We have never been content to stand still. Yet, our progress as a comparatively young nation can be but the shadow of a greater, more prosperous America if the vast resources in mind and matter available here at home are nurtured and used fully and wisely. Greater awareness of this need on the part of national leaders has become apparent, lending encouragement to the hope that more dynamic and fruitful programs to muster all of our capabilities will be forthcoming.

A natural fire barrier as workable as wood

A unique insulation board, workable as wood, Asbestolux combines more inherent advantages than any similar material. Long-fibered Amosite asbestos and a selected grade of silica with special properties are bonded under heat and pressure. Light and strong, Asbestolux is incombustible, and stable.

Write for Bulletin J-850.

ASBESTOLUX

FIREPROOF INSULATION BOARD

NAAC

In the United States

NORTH AMERICAN ASBESTOS CORPORATION

Board of Trade Building • Chicago 4, Illinois

In Canada

CAPE ASBESTOS (CANADA) LIMITED

200 Bloor Street East • Toronto, Ontario

CAPE

Subsidiaries of The Cape Asbestos Company, Ltd., London

"As we move ahead to the milestone of Ruberoid's 75th anniversary, the strength and stability which time has given to our company will be invaluable assets as we seek better ways to build a brighter future for all of us."

ARMSTRONG CORK COMPANY has recently published its new 16-page collection of views of important new buildings with quotations from Vitruvius, entitled, "A Portfolio of Mid-Twentieth Century Architectural Interiors".

TURNERS ASBESTOS CEMENT COMPANY LIMITED of Trafford Park, Manchester 17, England, have recently released a 14 page, 11" x 8½" brochure, entitled "Sprayed Limpet Asbestos—Heat and Sound Insulation".

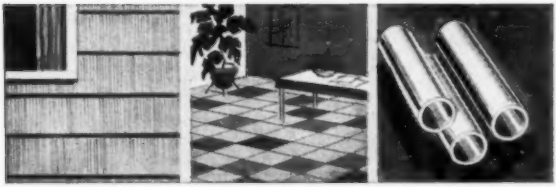
INDUSTRIAL ARCHITECURE: *An Analysis of International Building Practice,* is a new book just published by F. W. Dodge Corporation, New York City. The challenge of planning industrial buildings that overcome the threat of "mechanized barbarism" is the recurring theme of this book and is a perceptive work written by James F. Munce, an internationally-known architect.

The book contains 240 pages—over 250 photographs, drawings, and sketches—hardbound—Price $14.75.

WANTED

Brokers, Jobbers or man to sell Asbestos fibres in the U.S.A., or overseas, for established American mining company. State background and experience. Reply to Box No. 11SP-NY, "Asbestos", 807 Western Saving Fund Building, Philadelphia 7, Pennsylvania.

High grade asbestos fibers produced to your needs



Shingle and siding stock, floor tiles, brake linings, insulating coatings, pipe or plastics – name your product–Flintkote's research laboratories are completely equipped to determine and recommend the grade and characteristics of asbestos fiber your product needs. Flintkote Mines extensive facilities mill fibers to meet every requirement!

If asbestos fiber is a factor in your manufacturing process, call or write Flintkote for a quick answer to any problem.

Flintkote Mines, Ltd.

(Subsidiary of the Flintkote Company) Thetford Mines, P.Q., Canada · New York Office: 30 Rockefeller Plaza, New York 20, N.Y.

FLINTKOTE®

· Toronto Office: 30th Street, Longbranch, Toronto, Ont., Canada · London Office: Adam House, 1 Fitzroy Square, London W-1, England

MARKET CONDITIONS

GENERAL BUSINESS.

While the general economic situation shows no signs of rapid or serious deterioration, there are in evidence numerous small declines in activity as indicated by recognized statistical yardsticks which definitely make for a darker picture than at any time in the past year. Total output of goods and services for the third quarter dipped for the first time since the steel strike last year. Housing starts in September were considerably lower than in August. Steel production remains at the low level of the past few months with no uptrend in sight. Corporate earnings, on balance, were trending lower and in many cases are most disappointing.

On the brighter side, freight car loadings continue to rise and auto production and sales are still at a good rate.

Much of the present uncertainty can be attributed to the fact that this is an Election year. Historically, Election years have generally presented a mixed economic picture and this is no exception. Once the voter's decision is known it is probable a much more decisive trend will be evidenced either upward or downward depending on how businessmen evaluate the results.

ASBESTOS—RAW MATERIAL.

September 1960 asbestos fibre shipments for the industry at 100,302 tons were 14,394 tons or approximately 17% higher than the same period last year. Shipments for the first nine months of 1960 are running 75,282 tons or roughly 11% ahead of 1959.

The demand for asbestos from domestic sources appears to be on the uptrend, and 1961 sales, are expected to exceed those of 1960.

All fibre grades are presently in ample supply.

ASBESTOS—MANUFACTURED GOODS.

Asbestos Textiles. The market situation at the present time remains unchanged from the previous month's and

Asbestos Cements
Asbestos Millboard
Asbestos Rollboard
Corebestos Panel Fill
Commercial Asbestos Paper
Pipe and Block Insulation for Heat and Cold
Asbestos Felts and Paper for Saturating
Spraycraft Fireproof Acoustic Plaster

1414 E. LINDEN AVE. LINDEN, N. J.

no significant increase in business is foreseen for the balance of the year.

Asbestos Brake Lining. The overall Replacement Market is ahead of 1959. The Original Equipt Market is behind last year, but an increase is expected due to the sale of the new 1961 models. The outlook for the rest of the year should improve over 1959 in both Replacement and O.E.M. markets.

Asbestos Paper. The market situation at the present time for this product is levelling off to about the same level as last year. The outlook for the rest of the year is fair. The market situation at present for *Asbestos Saturated Paper* is fairly good and is at about the same level as last year. The outlook for the remainder of the year is good except for seasonal adjustment which is expected to take a downward trend.

Asbestos-Cement Products. Products used for residential construction continue at lower volumes than experienced during the same period of the last few years, and no improvement is anticipated for the balance of the year. Products used for commercial and industrial work are selling fairly well, and except for seasonal variations, should continue to do reasonably well for the balance of the year.

High Pressure Insulation. At the present time, business is slightly better than it was earlier in the year, but slow improvement is expected for the balance of the year.

Shingles—Roofing & Siding. The market situation for Asbestos-Cement Siding during the third quarter of this year is slightly lower than the same quarter of last year. This condition is expected to remain at this level for the balance of the year.

Asbestos Pipes. The market situation at the present time reflects the usual seasonal decline, which may be more severe than in past years due to the depressed condition in the housing market.

The above comments have been made by various informed executives in the Industry. All comments are welcome.

Specify
UNARCO
®
FOR INSULATION THAT ALWAYS PAYS OFF
UNIBESTOS, the Amosite Asbestos Pipe Covering and Block
Calcium Silicate Pipe Covering and Block
85% Magnesia Pipe Covering and Block
Mineral Fiber Block
Slip-On Insulation
Wrap-On Insulation
Lace-On Insulation
Turbine Blankets
Specially Fabricated Insulations
Insulating and Finishing Cements
Protective Mastic Coatings
Asbestos Textiles
Packing and Gasketing
U-200 Low Temperature Insulation
Write for Complete Information on Any Product
UNION ASBESTOS & RUBBER COMPANY
1111 W. Perry Street, Bloomington, Illinois
Over 30 years of specialization in quality asbestos products

J-M Asbestos Yarn
—made from uniform high-quality roving. Available in any grade, cut or ply Plain, reinforced with other yarns or wire, or treated.

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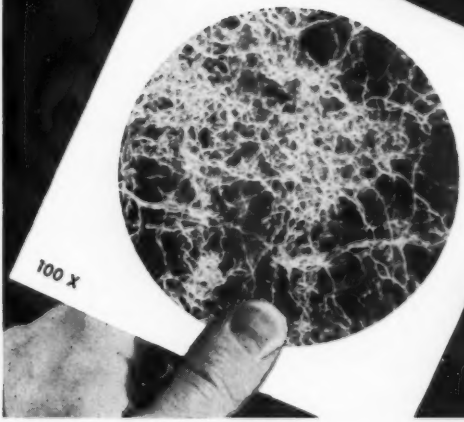
An important "plus" in J-M Asbestos FIBRES or TEXTILES...

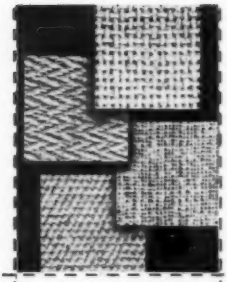
UNIFORMITY:



In the most modern asbestos mill in the world, exacting milling techniques enable J-M to maintain complete uniformity of fibre within more than 60 commercial grades.

a

J-M Asbestos Tape uniform high-grade yarns that combine exceptional electrical and thermal insulating properties with high tensile strength.



J-M Asbestos Cloth—uniform texture from light-proof to open weave. Exceptional resistance to heat, flame, chemicals. In all standard grades.

assured by Johns-Manville

Whether you require raw asbestos fibres or finished textiles . . . be sure of uniform quality by dealing with asbestos headquarters . . . *Johns-Manville.*

J-M combines the production of the world's largest asbestos mine at Asbestos, Quebec, with the facilities of the world's largest asbestos mill. Highly skilled asbestos technicians use the latest equipment to provide a precise control of production that assures uniformity, correct grading and maintenance of quality standards.

For FIBRE literature write Asbestos Fibre Division, Box 1500, Asbestos, Quebec, Canada.

For TEXTILE literature write Asbestos Textiles Department, Box 14, New York 16, N.Y.

JOHNS-MANVILLE JM PRODUCTS

BUILDING

Construction contracts in September rose above year-earlier levels for the second month in a row, F. W. Dodge Corporation reported. Sparked once again by sharp gains in non-residential building and heavy engineering contracts, the September awards totalled $3,118,775,000, up 2% over September 1959. Residential building contracts, however, continued well below a year ago.

Despite the rise over year-earlier levels, the September figures dipped slightly from the previous month on a seasonally adjusted basis with the Dodge Index of contruction contracts reported at 271 (1947-49=100) compared with 276 in August and 285 in July.

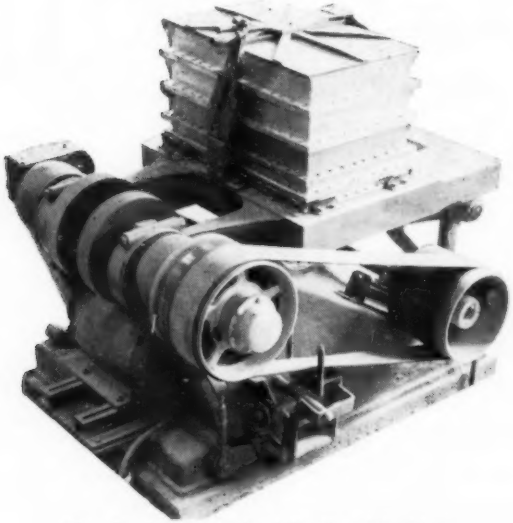
Dr. George Cline Smith, Dodge Vice President and chief economist, pointed out that "while the seasonally adjusted Dodge Index has been edging downward recently, it has remained above the record 1959 yearly average of 265 for the past four months. In fact, non-residential building contracts in September would have set a new all-time record for the month except for September 1952 when a huge atomic energy plant boosted that month to an unusually high level".

Contracts for non-residential buildings in September rose 12% above the comparable month last year. Heavy engineering contracts in September were up 22% over a year ago, sparked by a 42% gain in highway contracts. Contracts for residential buildings in September were down 13% from September 1959. A sharp rise in contracts for apartment buildings was more than offset by declines in one- and two-family houses.

A summary of the latest figures follows: non-residential building, $1,124,444,000, up 12%; residential building, $1,277,343,000, down 13%; and, heavy engineering, $716,988,000, up 22%—total construction, $3,118,775,000, up 2%.

Cumulative totals for the first nine months of 1960 with percentage changes from the corresponding period of last year, were: non-residential building, $9,215,816,000, up 4%; residential building, $11,620,701,000, down 14%; and, heavy engineering, $6,663,488,000, up 7%—total construction, $27,500,005,000, down 4%.

ASBESTOS FIBRE QUALITY CONTROL



The Quebec Standard Testing Machine

WE MANUFACTURE OR SUPPLY THE FOLLOWING

MILL LABORATORY EQUIPMENT

QUEBEC STANDARD TESTING EQUIPMENT
SURFACE AREA APPARATUS
ROTAP SIEVE SHAKERS
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FIBRE FLUFFERS
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SCALES AND BALANCES
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COMPLETE DIAMOND DRILL CORE AND BULK SAMPLING PLANTS

Lynn MacLeod Engineering Supplies Ltd.

THETFORD MINES, QUEBEC, CANADA

ROBERT ABBOTT, recent Raybestos-Manhattan, Inc. Director and President and General Manager of Raybestos-Manhattan (Canada) Limited of Peterborough, Ontario, died October 9th, 1960, at his home in Peterborough.

Mr. Abbott started with the Raybestos Company, now the Raybestos Division, in Bridgeport, Connecticut, in 1918. He helped organize the Canadian plant in 1920 and became its first manager and developed it to a sizeable operating unit, manufacturing friction material for the automotive and other industries and now also rubber products for the Canadian market.

Mr. Abbott retired in January 1956 and continued to live in Canada. He was well known in industrial circles, particularly automotive.

MANUAL OF MAN-MADE FIBRES is the most comprehensive work of its kind and it provides in condensed form a wealth of information on all organic and inorganic man-made fibres.

In addition to manufacturing flowsheets, stress-strain diagrams, and tables, this book also contains a most complete identification section including microscopic appearances and X-ray diffraction patterns of all fibres (on art, paper). There is a section on textured yarns, a world list of each man-made fibre producer, and there is also a very extensive bibliography of all man-made fibres covering manufacture, properties, and uses.

This book is available direct from Astex Publishing Company, 22/23, North Street, Guildford, Surrey, England (Price: 29 shillings).

POLYREZ

PHENOLIC RESINS IN
Liquid, Lump and Powder
For All Friction Materials.

POLYREZ COMPANY, INC.

RAILROAD & SO. COLUMBIA WOODBURY, N. J.

DURASORB

FELTS for Asbestos Cement Products

Give Better:

- **FINISH**
- **DRAINAGE**
- **LIFE**

Our sales engineers and designers have succeeded many times in improving one or more of these essential production features. We can help you too.

TALK IT OVER WITH YOUR ALBANY FELT SALES ENGINEER

ALBANY FELT COMPANY
ALBANY, N.Y.
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Just published—NATIONAL FIRE CODES—seven cloth-bound reference volumes (181 separate standards, 5,614 pages), 1960-1961 editions, containing complete, current texts of all NFPA standards on every phase of fire protection and fire prevention.

The National Fire Codes may be obtained from the Publications Department, National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts, ($7.00 per volume, 40.00 for the set of seven).

The NATIONAL SAFETY COUNCIL has recently published a new volume of the book, *"Five Minute Safety Talks For Foremen"* (Book 10). This book, the tenth in a general industrial safety series, is divided into sections on motivation, machines and tools, materials, movement and managing men.

Further information and quantity prices on this book may be obtained from the National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois.

Exporters of

RAW ASBESTOS

ALL GRADES—ALL TYPES

C. J. PETROW & COMPANY (PTY.) LTD.

P. O. BOX 11000

RAND CENTRAL — 165 JEPPE STREET

JOHANNESBURG - SOUTH AFRICA

OFFICES ALSO IN: TOKYO (JAPAN) AND BULAWAYO (SO. RHODESIA)

asbestos cement department

10, VIA SANTA TERESA

TURIN, ITALY

Manufacturers of all types of Fully Automatic

asbestos cement machinery

Daily output guaranteed according to the International Standard Specification:

150 ton high pressure pipes
300 ton flat and corrugated sheets

AFRICA (Rhodesia)

(Published by Rhodesian Mining and Engineering)

Tons 2,240 lbs.

Production for August 1960	10,895.89
Valued at	£607,345.10
Production for August 1959	9,861.26
Valued at	£654,523.00

CANADA

(Dept. of Mines, Province of Quebec)

Tons 2,000 lbs.

Production for August 1960 (Quebec)	98,500
Other Provinces	4,786
	103,286

Total production for August 1959 was 91,929 tons.

THE RUBEROID CO.

Nine-Month Report

Net sales of The Ruberoid Co. for the quarter ended September 30, 1960, totaled $36,116,782 compared with $37,056,495 for the third quarter of 1959. Net income for the three months ended September 30, 1960, amounted to $1,782,194, equal to 94c per share. This compares with net income of $1,926,326, or $1.01 per share for the quarter ended September 30, 1959.

For the nine months ended September 30, 1960, net sales totaled $93,021,532 compared with $97,927,343 for the first nine months of 1959. Net income for the nine months ended September 30, 1960, was $3,622,074, equal to $1.90 per share. For the similar nine months of 1959, net income amounted to $4,847,763, or $2.55 per share.

All machinery for the equipment of plants producing asbestos-cement pipes and sheets

covering the entire production process from the stock preparation to the testing of the finished product.

All machinery for wet or dry preparation of asbestos-cement / Asbestos silos.
Sheet producing machines with one to three cylinder moulds, automatic or semi-automatic combined production lines for flat and corrugated sheets.
Piling equipment combined with cleaning and lubricating machinery for flat and corrugated steel sheets, suitable also for automatic operation / punching and trimming machines / hydraulic presses.
Pipe winding machines for the production of pressure pipes of up to 5 metres (16 ft. 5 in.) length and 1000 millimetres (3 ft. 3 in.) dia / lathes for pipes and joints / cut-off grinders / testing presses for pipes and joints / calenders for the forming of plain and joint-fitted pipes / mandrel pull off machines / autoclaves for hardening of asbestos-cement sheets and pipes as well as many other units, pumps and accessories.

Leaflets describing individual machines will be readily sent on request.

J.M.VOITH A.G.

St. Poelten – Austria
P.O.B. 168 / Tel. 2501 / Teletype 01 510

SM 745 e

Imports Into U.S.A.

(Figures by Bureau of Census)

Unmanufactured Asbestos:

	June 1960 Tons (2,240 lbs.)
From: Canada	58,780
Rhodesia (Ny)	2,861
Union of South Africa	1,648
Yugoslavia	344
Australia	160
United Kingdom	41
Other Countries	112
	63,946
Valued at:	$5,782,049

By Grades:

Crude, Chrysotile, Yugoslavia	344
Crude, Chrysotile, Union of South Africa	112
Crude, Blue, Australia	160
Crude, Blue, Union of South Africa	779
Crude, Blue, Rhodesia (Ny)	147
Crude, Amosite, Union of South Africa	622
Crude, Amosite, Rhodesia (Ny)	317
Textile Fiber, Chrysotile, Canada	1,429
Textile Fiber, Chrysotile, United Kingdom	41
Textile Fiber, Chrysotile, U. of S. Africa	135
Textile Fiber, Chrysotile, Rhodesia (Ny)	98
Shingle Fiber, Chrysotile, Canada	9,199
Shingle Fiber, Chrysotile, Other Countries	18
Paper Fiber, Chrysotile, Canada	2,216
Other Fibers, Chrysotile, Canada	45,936
Other Fibers, Chrysotile, Rhodesia (Ny)	2,299
Other Fibers, Chrysotile, Other Countries	94
	63,946

Manufactured Asbestos Goods:

	June 1960 Quantity (lbs.)	Value
Asbestos Yarn, United Kingdom	26,520	$ 17,079
Other Countries	31,629	16,865
Asbestos Packing	23,892	6,147
Asbestos Shingles (Impregnated)		
Belgium	440,262	72,317
Other Countries	132,273	7,781
A-C Pipe A Fittings (Not Impregnated)		
Mexico	917,969	65,124

OVERSEAS

INTEGRITY

Wherever you order **Gold Bond asbestos fibres,** you'll get the same top quality material we supply to our best U. S. customers. You'll also get prompt shipment and efficient service. For complete details, write National Asbestos Mines Ltd., Thetford Mines, P.Q., Canada. (Subsidiary of National Gypsum Company).

a step ahead of tomorrow

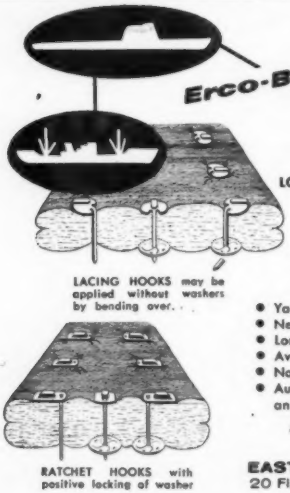
Gold Bond
INDUSTRIAL PRODUCTS

Belgium	2,712,184	199,008
Italy	4,706,489	188,738
Other Countries	215,989	12,038
A-C Mfrs—Other (Not Impregnated)	160,494	9,058
Asbestos Manufactures — Other	..	4,965
	9,367,701	$599,120

IMPORTS OF ASBESTOS BY UNITED KINGDOM

Raw Materials
Tons 2,240 lbs.

	August 1960
From: Union of South Africa	2,575
Basutoland, Bechuanaland & Swaziland	1,498
Rhodesia & Nyasaland	4,012
Canada	6,448
Other Commonwealth Countries & Irish Republic	268
Foreign Countries	735
	15,446


Erco-Bergen HOOKS
LACING HOOKS may be applied without washers by bending over.
RATCHET HOOKS with positive locking of washer

LOW COST FASTENERS FOR REMOVABLE TYPE INSULATING BLANKETS.

- Used extensively by contractors & shipbuilders on TURBINE BLANKETS, VALVE & FLANGE COVERS, PUMPS, EXHAUST MANIFOLDS
- Yards report over 200% labor savings
- Neater appearance
- Long lasting
- Available in cadmium plate or stainless steel
- No special tools required
- Authorized distributor outlets throughout U.S. and Hawaii

Available in three sizes 2½" - 4" - 7"

Tel. IV 9-0700

EASTERN REFRACTORIES CO., Inc.
20 Flanders Road Belmont 78, Mass.

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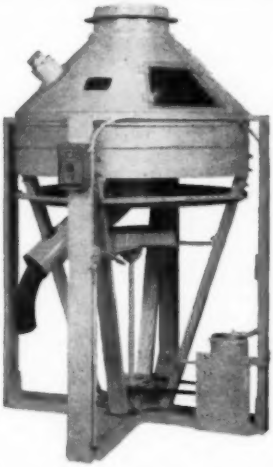
used in
Asbestos Industry



Bauer

Specific
Gravity
Separators

Asbestos processing plants are using 150 Bauer Specific Gravity Separators for cleaning fiber. The machines are available in two sizes with 1 to 5 T/hr. capacity.

They require less air than other types of cleaners. They handle Nos. 4 to 8 fibers.

The separators remove small grit, rock particles, blasting wire, wood particles, and many other kinds of debris. Ask for particulars.

THE BAUER BROS. CO.

1826 Sheridan Ave. • Springfield, Ohio

Canadian Agents: — Lynn Macleod Engineering Supplies, Ltd., Thedford Mines, Quebec.

Export Agents: — M. Neumunz & Son, Inc., 90 West St., New York 6, N.Y.

Exports From U.S.A.

(Figures by Bureau of Census)

Unmanufactured Asbestos:

	July 1960 Tons (2,240 lbs.)	Value
To: Canada	108	$ 11,415
Europe	94	26,252
United Kingdom	38	3,760
South America	21	3,384
Other Countries	10	2,643
	271	$ 47,454

Manufactured Asbestos Goods:

Asbestos Cement & Pipe Covering ..Lbs.	504,447	$ 169,602
Asbestos Textiles & Yarn .....Lbs.	61,459	50,383
Asbestos Packing .....Lbs.	172,111	197,364
Asbestos Clutch Facing .....No.	96,536	76,894
Asbestos Bk Lng (Mld & S.Mld) Lin.Ft.	116,550	74,767
Asbestos Brake Lining, Other .....Lbs.	311,067	306,586
Asbestos Construction Material ....Lbs.	2,009,480	212,420
Asbestos Manufactures — Others	..	49,331
		$1,137,347

THE FLINTKOTE COMPANY

Nine-Month Report

In an interim statement to stockholders, The Flintkote Company reported net sales for the three months ended September 30, 1960, amounting to $73,059,499 compared with $72,824,334 in the corresponding period a year ago. Net income for the quarter totaled $5,185,041, equal after preferred dividend requirements to 86c per share. A year earlier net income amounted on an adjusted basis to $6,030,057, equal after preferred dividend requirements to $1.02 per share.

Net sales for the nine months ended September 30, 1960, aggregated $192,255,237 compared with $192,550,488 in the comparable period last year. Net income for the nine-month period was $10,841,307, equal to $1.72 a share compared with $13,434,922, or $2.20 a share.

NEWARK HAIR FELT COMPANY
LOW TEMPERATURE INSULATION
1000 Maple Avenue
LANSDALE, PENNA

ASBESTOS FIBRE

OF ALL TYPES

BRANDHURST COMPANY LIMITED

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LONDON

E. C. 4

Telephone:	Cables:
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(Private Branch Exchange)	London

Exports From Canada

(Published by Dominion Bureau of Statistics)

Unmanufactured Asbestos:	July 1960 Tons (2,000 lbs.)	Value
Crude		
United States	3	$ 2,187
United Kingdom	..	..
South America	..	..
Central America & Mexico	..	..
European Countries	3	4,500
Other Countries	3	2,255
	9	$ 8,942
Milled		
United States	10,509	$2,115,404
United Kingdom	4,084	790,280
South America	2,448	449,311
Central America & Mexico	1,340	240,605
European Countries	15,630	2,889,307
Other Countries	5,439	879,190
	39,450	$7,364,097
Shorts		
United States	32,470	$1,760,907
United Kingdom	4,151	213,564
South America	483	31,460
Central America & Mexico	230	19,479
European Countries	5,362	281,363
Other Countries	3,278	256,424
	45,974	$2,563,197
Grand Total— Unmanufactured Asbestos:	85,433	$9,936,236
Manufactured Asbestos Goods:		
Brake Lining		$ 24,948
Packing		..
Other Materials		13,485
		$ 38,433

Orvald A. Gratias has been appointed as President of ATLAS ASBESTOS COMPANY LIMITED, effective October 1st, 1960. **Charles H. Jackson,** retiring as President for reasons of health after fourteen years with the Company, will continue in a consulting capacity.

ARIZONA ASBESTOS

Mined and Milled by

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Producers of Soft, Low Iron, White Chrysotile
Crudes and Filter Fibre

MINES AND MILL IN GILA COUNTY

NEWS OF THE INDUSTRY

HAPPY BIRTHDAY

A. J. Scanlan, President, American Asbestos Textile Corporation, Norristown, Pennsylvania, November 21.

J. A. Marcotte, General Sales Manager, Asbestos Corporation Limited, Thetford Mines, Canada, November 22.

Alvin C. McCord, President, McCord Radiator & Manufacturing Company, Detroit, Michigan, November 24.

E. J. O'Leary, President & Chief Executive Officer, The Ruberoid Co., New York City, November 24.

A. C. Bywater, Director, Beldam Asbestos Company Limited, Hounslow, Middlesex, England, November 28.

M. M. Wilson, Vice President—Sales, Baldwin-Ehret-Hill, Inc., Trenton, New Jersey, November 28.

R. E. Kramig, Senior Partner, R. E. Kramig & Company, Cincinnati, Ohio, November 29.

Jack G. Ordway, Jr., President, MacArthur Company, St. Paul, Minnesota, November 29.

Frank G. Ruggles, President, Frank G. Ruggles & Company, New York City, December 2.

Harvey D. Burgstresser, President, Philadelphia Asbestos Company, Philadelphia, Pennsylvania, December 3.

P. M. Berry, Secretary-Treasurer, Standard Asbestos Manufacturing Company, Cleveland, Ohio, December 8.

E. J. Fasold, Secretary & Assistant Treasurer, The Philip Carey Manufacturing Company, Cincinnati, Ohio, December 8.

Kenneth MacLellan, Managing Director, George MacLellan & Company Limited, Glasgow, Scotland, December 8.

J. C. McKendry, President, Niagara Asbestos Company, Buffalo, New York, December 10.

D. W. Widmayer, Vice President & Marketing Consultant, Keasbey & Mattison Company, Ambler, Pennsylvania, December 12.

John O. Camp, Vice President, Southern Friction Materials Company, Charlotte, North Carolina, December 13.

George P. Grossman, President, Asbestos Products Company, Inc., Cleveland, Ohio, December 13.

Fred Lee Johnston, Superintendent, Southern Friction Materials Company, Charlotte, North Carolina, December 13.

To all these gentlemen we extend congratulations and best wishes on the occasion of their birthdays.

PHILLIPS ASBESTOS MINES

Producers of CRUDES and FIBERIZED ASBESTOS
The World's Finest Fibres
DRAWER 71, GLOBE, ARIZONA Mines and Mills in Gila Co., Arizona

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Manufacturers of the finest and most modern plants for the production of asbestos-cement products, such as

pressure pipes
socket pipes
flat and corrugated sheets

Projecting — Erecting — Handing over in ready-for-operation condition

Get full information! **Write now!**

R. B. Hazard, Vice President and Sales Manager Rubber and Packings, RAYBESTOS-MANHATTAN, INC., was elected Director of the Corporation at the Directors Meeting held October 19, 1960.

Mr. Hazard started with Raybestos in 1945 as Sales Representative at Minneapolis, Minnesota. In 1948, he was appointed Manager Distributor Sales Western District located at Chicago, Illinois; in 1952, Sales Manager Packing Division at Manheim, Pennsylvania; and, in January 1955, Sales Manager Rubber and Packing Divisions at Passaic, New Jersey. Mr. Hazard was appointed Vice President and Sales Manager Rubber and Packings in June 1956.

Dr. E. P. Stefl has been appointed Assistant General Manager of U. S. Asbestos—Grey-Rock Division of RAYBESTOS-MANHATTAN, INC., Manheim, Pennsylvania, effective October 1st, 1960.

Dr. Stefl joined the Manheim organization in April 1952 as head of the Organic Chemistry Section of the Research and Development Department. He subsequently became Assistant Director of the Laboratory. In 1956 he was made Manager of Equipment Sales for the Division. In 1959 he was appointed Manager of Products, with the responsibility of coordinating the requirements of all sales departments of this Division for new and improved products.

W. W. Rowe, Jr. has been appointed as Merchandising Manager, Industrial Products, it was announced by A. E. Binger, Division Vice President of THE PHILIP CAREY MANUFACTURING COMPANY.

Mr. Rowe will be headquarted at the company's General Offices in Cincinnati, Ohio, and will have staff merchandising responsibility for Carey Industrial Products including: asbestos paper, asbestos millboard, automotive products, railroad products, fabricated and die cut parts and dry felt.

T. J. Pohl has been appointed as Sales Manager for the Insulation Division of M. H. DETRICK COMPANY, it was announced by T. S. Clousing, General Manager.

Mr. Pohl's business career has always been connected with the Industrial Insulation field and this experience has given him an understanding of both the economic and technical phase of insulation. He joined the Detrick organization in September, 1959, and will be headquartered in the firm's main office at 111 West Washington Street, Chicago, Illinois.

Your dependable, established, volume supplier of high-grade asbestos **for every application is Lake Asbestos of Quebec. LAQ is an independent source of uniform quality chrysotile asbestos fibre and its annual capacity of 100,000 tons is your assurance of continuous supplies. For additional information, call or write Lake Asbestos of Quebec, Ltd., 120 Broadway, New York 5, N. Y., or your nearest sales agent.**

NORTH AMERICAN SALES AGENTS:

California, Los Angeles
E. B. Taylor Company

California, San Francisco
E. M. Walls Company

Colorado, Denver
Braun-Knecht-Heimann Co.

Illinois, Chicago
Central Solvents & Chemicals Co.

Indiana, Indianapolis & Ft. Wayne
Hoosier Solvents & Chemicals Corp.

Kentucky, Louisville
Dixie Solvents & Chemicals Co.

Massachusetts, Allston
D. H. Litter & Co., Inc.

Michigan, Detroit
Baker & Collinson

Missouri, Kansas City & St. Louis
Missouri Solvents & Chemicals Co.

New York, Buffalo
Buffalo Solvents & Chemicals Corp.

New York, New York
D. H. Litter & Co., Inc.

Ohio, Cincinnati
Amsco Solvents & Chemicals Co.

Ohio, Cleveland
A. C. Mueller Co., Inc.

Oregon, Portland
Van Waters & Rogers, Inc.

Pennsylvania, Conshohocken
Van Horn, Metz & Co., Inc.

Texas, Houston
Federated Metals Division

Utah, Salt Lake City
Braun-Knecht-Heimann Co.

Washington, Seattle
Van Waters & Rogers, Inc.

Wisconsin, Milwaukee
Wisconsin Solvents & Chemicals Corp.

In Canada: Toronto & Montreal
Federated Metals Canada, Ltd.

LAKE ASBESTOS OF QUEBEC, LTD.
a subsidiary of American Smelting and Refining Company

ASARCO

BOOK LIST

The Asbestos Factbook, 16 pages: Information in comment form on origin, facts, locations, uses of analyses, qualities, 25c per copy.

Asbestos Mining Methods. By C. V. Smith. (Reprint) 16 pages 25c per copy.

Milling Asbestos. By J. C. Kelleher. (Reprint) 16 pages. Companion article to Asbestos Mining Methods. Both should be in every Asbestos Library, 25c per copy.

Recovery of Raw Asbestos. By Roland Starkey. (Reprint) 6 pages. Supplement to Milling Asbestos. 25c per copy.

Canadian Chrysotile Asbestos Classification. Including latest Quebec Testing Method. January 1, 1949 Edition. 4 pages 25c per copy.

Processing Asbestos Fibres. 8 pages. (Reprint). 25c per copy

Tests for Cotton Content. 4 pages (Reprint). Describing several methods of testing asbestos textile for cotton content. 10c per copy.

Chart—Dollars Cost of Uninsulated Pipe. (Reprint), 20c each

Brake Linings of Various Types. By R. T. Halstead, (Reprint) (12 pages) from August, September and October 1949 "ASBESTOS". Price 25c per copy.

Twelve Estimating Tables, with Chart. Convenient in figuring flange fittings and other areas, $1.00 per set.

Manual of Unit Prices. For figuring pipe covering and blocks $1.00 per single copy postpaid. Discount in quantities of 6 or more, postage billed.

Order any of the above from "ASBESTOS," 807 Western Saving Fund Bldg., Philadelphia 7, Pa. Payment should accompany order.

ASBESTOS BULLETIN

A new journal bringing in each issue abstracts of over 100 patents and articles on the mining and processing, and uses of asbestos. Special chapters on mining, asbestos cement, asbestos textiles, and friction material, reinforced plastics, and plastics building and insulating materials. Yearly subscription £9 -15- Od from:

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& Fibres

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Cassiar Asbestos Corporation Limited

THE TWELVE ESTIMATING TABLES

The Twelve Estimating Tables, with Chart, convenient in figuring flange fittings and other areas, is $1.00 per set.

These tables have been found very useful by estimators in figuring areas, but since we have not for some time published the detailed list, it occurred to us that many would like to know exactly what the tables cover, and order them before the fall work begins. Following is the list.

Sq. Ft. Areas of Pipe Covering.
Mean Sq. Ft. Areas Standard Screwed Fittings.
Mean Area Standard Weight Flanged Fittings.
Standard Weight Flange Areas, Permanent Type.
Standard Weight Flange Areas, Removable Type.
Figuring Hair Felt, 1", 1½", 2".
Anti-Frost Insulation.
Cork Pipe Covering, Outside Area in Sq. Ft.
Ice Water Thick Cork Moulded Fittings Screwed, Outside Area in Sq. Ft.
Brine Thickness Cork Moulded Fittings, Screwed, Outside Areas in Sq. Ft.
Special Thickness Cork Moulded Fittings, Screwed, Outside Areas in Sq. Ft.
Dusts and Flue Perimeters.
The chart gives an easy way to figure Curved Cylindrical Surfaces.

The tables are printed on paper which will wear well under handling. Orders can be filled immediately upon receipt, write Asbestos, 807 Western Savings Fund Bldg., Philadelphia 7, Pa.

NATIONAL GYPSUM COMPANY
Nine-Month Report

National Gypsum Company reported its earnings for the third quarter of 1960 were $7,844,010 on sales of $66,812,098 compared with income of $8,515,182 on sales of $67,200,659 during the third quarter of 1959, without Allentown Portland Cement Company.

Earnings for the first nine months of this year were $18,680,824 or $2.98 a share compared with $20,248,197 or $3.69 a share for the same period last year when Allentown was not included. Sales for the January 1, 1960 to September 30, 1960 period were $174,469,170 compared with $173,506,000 for the same 1959 period.

MOODY Fibre Fluffer re-opens Pressure Packed Asbestos Fibre

...all grades of pressure packed asbestos from shorts 7-R to spinning fibre 3-R restored to pre-packaged fluffy condition — free from lumps and mats. Compact, simple to operate — fits into any production line. Up to 15 ton capacity per hour.

Partial list of users

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Alcatraz Co. Inc.
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Eaton Mfg. Co.
Flintkote Co.
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Henry, W. W. Co.
Hooker Chemical Co.
Inland Mfg. Div.
Johns-Manville Products Corp.
Linde Air Products Co.
Marshall-Eclipse Div. of Bendix
National Brick Co.
National Gypsum
Philip Carey Co.
Supradur Mfg. Corp.
Thermoid Co.
Union Asbestos & Rubber Co.
United States Gypsum Co.
Worldbestos

Canada

Asbestos Corp.
Asbestonos Corp.
Atlas Asbestos
Canadian Johns-Manville
Cassiar Asbestos
Husky Oil & Refining Ltd.
Lake Asbestos

Elsewhere

Industria de Asbestos, Dominican Republic
Israel Brake Lining, Israel
Trust, Hubert H. P. & Co., England
Turner Bros., England

Full details and literature on request

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As of October 10, 1960

ARIZONA— Per Ton of 2,000 lbs., f.o.b. Globe, Arizona

No. 1 Crude (soft)	$1,475.00 to $1,800.00
No. 2 Crude (soft)	830.00 to 1,050.00
Group-3 (Filtering & Spinning)	350.00 to 450.00
Group-4 (Plastic & Filtration)	190.00 to 250.00
Group-5 (Plastic & Moulding)	125.00 to 177.00
Group-7 (Refuse & Shorts)	60.00 to 100.00

CANADA— Per Ton 2,000 lbs. f.o.b. Mine
Canadian Currency

Group No. 1 (Crude No. 1)	$1,410.00 to $1,475.00
Group No. 2 (Crude No. 2); Crude Run-of-Mine and Sundry	610.00 to 875.00
Group No. 3 (Spinning Fibre)	350.00 to 650.00
Group No. 4 (Shingle Fibre)	180.00 to 245.00
Group No. 5 (Paper)	120.00 to 150.00
Group No. 6 (Waste, Stucco or Plaster)	.. 86.00
Group No. 7 (Refuse or Shorts)	40.00 to 80.00

VERMONT—Per ton of 2,000 lbs. f.o.b. Hyde Park or Morrisville, Vt.

Group No. 3 (Spinning & Filtering)	$ 353.00 to $ 440.00
Group No. 4 (Shingle Fibre)	181.00 to 218.00
Group No. 5 (Paper Fibre)	120.00 to 142.00
Group No. 6 (Waste, Stucco or Plaster)	.. 86.00
Group No. 7 (Refuse or Shorts)	41.00 to 75.00

JOHNS-MANVILLE CORPORATION

Nine-Month Report

Consolidated earnings of Johns-Manville Corporation and subsidiary companies for the third quarter of 1960 were $7,582,000, compared with $8,431,000 for the corresponding period last year. Sales in the third quarter of 1960 were $99,647,000, compared with $101,892,000 in the third quarter of 1959. Earnings per share of common stock were 90c, compared with $1.01 last year.

For the year to date, sales were $273,973,000 and earnings were $21,092,000 or $2.49 per share, compared with sales of $278,206,000 and earnings of $23,351,000 or $2.81 per share for the first nine months of last year.

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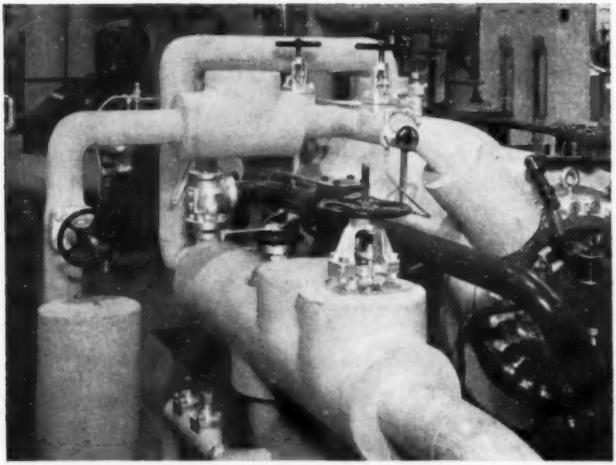
ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial & Financial Chronicle. No guarantee as to their correctness.)

		October 1960		
	Par	Low	High	Last
Advocate Mines, Ltd.	1	$3.25	$3.85	$3.35
American Brake Shoe	np	35⅜	38	36½
Armstrong Cork (Com)	1	43½	46⅜	45¾
Armstrong Cork (Pfd)	np	78	82	79
Asbestos Corporation	np	24½	26	25
Philip Carey	10	23⅜	25¾	23¾
Cassiar Asbestos Corp.	np	12⅛	13⅛	13
Celotex (Com)	1	20¼	22	20¼
Celotex (Pfd)	20	17½	18¼	18
Certain-Teed	1	11½	12	12
Fibreboard	np	24¼	29¾	25½
Flintkote (Com)	5	25⅝	31⅜	25¾
Flintkote (Pfd)	np	81½	84	83
Johns-Manville	5	49¾	55⅛	52¼
National Gypsum (Com)	1	49⅛	53⅜	50
National Gypsum (Pfd)	np	93	98½	95
Porter, H. K.	100	88½	91¼	89½
Raybestos-Manhattan	np	40⅜	61	44¾
Ruberoid	1	31¾	33¾	32
Unarco	5	7⅛	8½	7
United Asbestos	1	$3.40	$4.05	$3.40
U. S. Gypsum (Com)	4	85¼	92	88½
U. S. Gypsum (Pfd)	100	154	159	158
U. S. Rubber (Com)	5	41¼	46⅞	42⅞
U. S. Rubber (Pfd)	100	154	155⅞	154¼

„ Tropag "
Hamburg —:— Ballindamm 6
Importers since 1909 of
ASBESTOS-ORES-MINERALS



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Curb expensive heat loss, control temperatures within minimum tolerances with performance-proved Pabco Insulations. For power plant piping and equipment, a Pabco Insulation insures peak performance wherever temperatures must be maintained up to 1900° F. Pabco's Caltemp and 85% Magnesia insulations are "Precision-Molded" by a patented process in both pipe and block form. For data on technical advantages... case histories... or engineering consultation, write... or call... a Pabco insulation engineer.

INSULATION GUIDE

Temperature	Recommended Pabco Insulation
to 550° F.	85% Magnesia pipe covering • block • cement
to 1200° F.	Caltemp pipe covering • block • cement
to 1500° F.	Prasco 15 C pipe covering • block • cement
to 1900° F.	Prasco 19 C block

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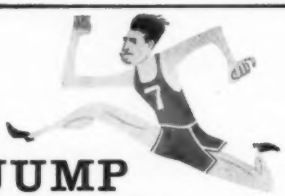
Ralph L. Lanz was elected to the executive post of Vice President—Materials and a member of the Board of Directors of KEASBEY & MATTISON COMPANY, effective September 1st, 1960. Mr. Lanz will be in charge of K&M's research and development, planning and inventory, and purchasing departments. He has been General Manager—Materials since December 1, 1959.

Mr. Lanz graduated from Norristown High School in 1930, obtained a B/S degree in Chemical Engineering from Drexel Institute of Technology in 1935, and joined K&M in 1936. He has held the positions of Quality Control Manager, and Planning and Inventory Department Manager since 1951.

Jefferson Craig has been named to the newly created position of Manufacturing Engineer at KEASBEY & MATTISON COMPANY, Ambler, Pennsylvania. The announcement was made by D. F. Altemus. Mr. Craig, a 1950 graduate of the University of Pennsylvania, holds a bachelor of science degree in mathematics.

Edward F. Mitchell has been appointed Plant Engineer of KEASBEY & MATTISON COMPANY's Plant No. 1, Ambler, Pennsylvania, it was announced by Noah Rhoades, Plant Manager. Mr. Mitchell will be in charge of plant equipment, utilities, grounds, and building maintenance in his new position.



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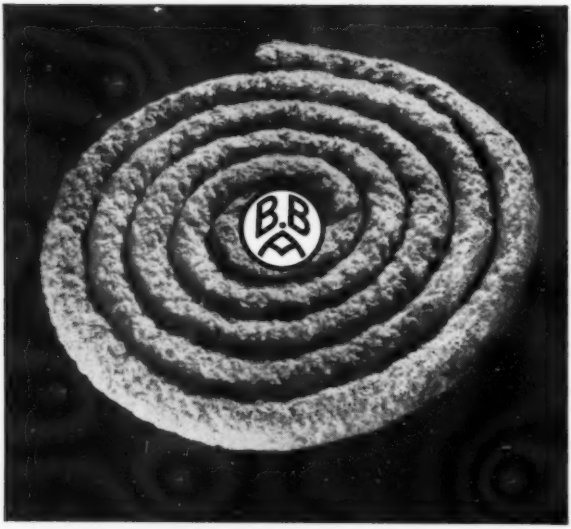

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STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 STAT. 208) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF

"ASBESTOS" (Insert exact title of publication) published Monthly (State exact frequency of issue)

at Philadelphia, Pa. (Name of post office and State where publication has second-class entry) for October, 1960

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

	Name	Address
Publisher	Secretarial Service	807 Western Svg. Fund Bldg., Phila. 7, Pa.
Editor	E. E. Cox	312 S. 12th St., Phila. 7, Pa.
Managing editor	E. E. Cox	312 S. 12th St., Phila. 7, Pa.
Business manager	E. E. Cox	312 S. 12th St., Phila. 7, Pa.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Name	Address
Trust of C. J. Stover, Proprietor	702 Benson East Apartments, Jenkintown, Pa.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

Name	Address
None	

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required by the act of June 11, 1960 to be included in all statements regardless of frequency of issue.) 1315

E. E. Cox
(Signature of editor, publisher, business manager, or owner)

Sworn to and subscribed before me this 16th day of September, 1960

[SEAL] Betty Demar

(My commission expires Jan. 16, 1963)

POD Form 3526
(July 1960)

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